

Mineral Industry Surveys

For information, contact:

Thomas S. Jones, Manganese Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4973, Fax: (703) 648-7757
E-mail: tjones@usgs.gov

Jesse J. Inestroza (Data)
Telephone: (703) 648-7968
Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999
Internet: <http://minerals.usgs.gov/minerals>

MANGANESE IN SEPTEMBER 1999

In September, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was 37,700 metric tons, which was a decrease of about 4% compared with the revised figure of 39,100 tons for the previous month, according to the U.S. Geological Survey. This brought the revised year-to-date total to 339,000 tons. The figures for September increase to 41,900 tons and 377,000 tons when estimates for annual respondents are added on the basis of 1998 data. Corresponding industry stocks of ore at the end of the month were 177,000 tons, which includes an estimate for annual respondents on the basis of 1998 data. This was an increase of about 8% compared with the corresponding figure for stocks at the end of August. (Data for the most recent 13 months are plotted in the graph on page 2.)

Data for domestic consumption and stocks of manganese ferroalloys and metal for the April through June quarter of 1999 will appear in a subsequent monthly report.

Foreign trade data for September will appear in a subsequent report. For August, the data tabulated in this report indicate that the number of manganese units exported were the least of any month during the 1990's so far. The quantity of manganese exported as ferromanganese was the least since February 1997 and as ferroalloy plus metal the least since July 1996. **Note:** For early availability, the trade data appearing in this report are being placed on MINES FaxBack in preliminary form. The data for August were placed on FaxBack as of October 27. The FaxBack document number for the September trade data will be 420209.

The Defense Logistics Agency, U.S. Department of Defense, reported for September that cash disposals of manganese materials from the National Defense Stockpile consisted of 480 tons of electrolytic manganese metal and 1,361 tons of natural battery-grade ore. The disposal of metal was all to Eramet Marietta Inc., Marietta, OH, and that of ore to American Minerals, Inc., King of Prussia, PA.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

| | Imports for consumption | | | Exports | | |
|----------------|-------------------------|----------------------|---------|---------|----------------------|--------|
| | Ore and dioxide | Ferroalloy and metal | Total | Ore | Ferroalloy and metal | Total |
| 1998: 3/ | | | | | | |
| August | 12,000 | 42,800 | 54,800 | 1,280 | 1,120 | 2,390 |
| January-August | 122,000 | 359,000 | 481,000 | 2,150 | 14,300 | 16,400 |
| 1999: | | | | | | |
| January | 16,300 4/ | 48,300 4/ | 64,600 | 95 | 1,850 | 1,940 |
| February | 17,900 4/ | 40,700 4/ | 58,700 | 13 | 1,160 | 1,170 |
| March | 22,100 4/ | 40,100 4/ | 62,200 | 75 | 1,500 | 1,570 |
| April | 18,300 4/ | 39,800 4/ | 58,100 | 24 | 1,250 | 1,280 |
| May | 33,100 4/ | 23,900 4/ | 57,000 | 135 | 1,370 | 1,500 |
| June | 31,900 4/ | 47,800 4/ | 79,700 | 46 | 1,270 | 1,320 |
| July | 67,200 4/ | 29,700 4/ | 96,900 | 385 | 1,190 | 1,570 |
| August | 25,800 4/ | 43,700 4/ | 69,600 | 75 | 953 | 1,030 |
| Total | 233,000 | 314,000 | 547,000 | 848 | 10,500 | 11,400 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ Data may include revisions by the Bureau of the Census.

4/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST 1999 1/

(Metric tons)

| Source | Gross weight | Mn content | Customs value | Year to date | | |
|------------------------|--------------|------------|---------------|--------------|------------|---------------|
| | | | | Gross weight | Mn content | Customs value |
| Australia | 3,910 | 2,580 | \$1,380,000 | 44,600 | 29,800 | \$16,200,000 |
| France | -- | -- | -- | 6,740 | 4,500 | 2,930,000 |
| Georgia | -- | -- | -- | 2,500 | 1,880 | 1,000,000 |
| India | -- | -- | -- | 4,250 | 2,720 | 1,650,000 |
| Kazakhstan | 4,450 | 2,950 | 1,820,000 | 13,600 | 9,140 | 5,250,000 |
| Mexico | 4,300 | 2,820 | 1,810,000 | 39,100 | 25,700 | 16,600,000 |
| South Africa | 6,320 | 4,250 | 2,470,000 | 53,500 | 36,000 | 20,800,000 |
| Spain | 951 | 597 | 615,000 | 951 | 597 | 615,000 |
| Ukraine | -- | -- | -- | 8,190 | 6,030 | 2,850,000 |
| Venezuela | 1,300 | 884 | 520,000 | 10,300 | 6,800 | 3,820,000 |
| Total | 21,200 | 14,100 | 8,620,000 | 184,000 | 123,000 | 71,800,000 |
| Total, general imports | 21,200 | 14,100 | 8,620,000 | 183,000 | 123,000 | 71,500,000 |

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST 1999 1/

(Metric tons)

| Source | Gross weight | Mn content | Customs value | Year to date | | |
|---|--------------|------------|---------------|--------------|------------|---------------|
| | | | | Gross weight | Mn content | Customs value |
| Low carbon: | | | | | | |
| China | 188 | 163 | \$198,000 | 1,130 | 975 | \$1,100,000 |
| Italy | 273 2/ | 158 2/ | 241,000 2/ | 2,970 | 2,530 | 3,580,000 |
| Japan | -- | -- | -- | 6,500 | 5,540 | 5,610,000 |
| Mexico | 700 | 559 | 634,000 | 1,220 | 977 | 1,110,000 |
| Netherlands 2/ | -- | -- | -- | 43 | 45 | 31,700 |
| Russia | -- | -- | -- | 21 | 6 | 17,700 |
| Slovenia | -- | -- | -- | 9 | 7 | 5,220 |
| South Africa | 382 | 330 | 398,000 | 1010 | 909 | 1,480,000 |
| Ukraine | -- | -- | -- | 60 | 57 | 64,800 |
| United Kingdom | -- | -- | -- | 445 | 417 | 296,000 |
| Total, low carbon | 1,540 | 1,210 | 1,470,000 | 13,400 | 11,500 | 13,300,000 |
| Total, general imports of low carbon | 1,540 | 1,210 | 1,470,000 | 13,400 | 11,500 | 13,300,000 |
| Medium carbon, 1%-2% C: | | | | | | |
| France | 1,350 | 1,100 | 739,000 | 2,720 | 2,220 | 1,510,000 |
| Japan | 212 | 180 | 246,000 | 424 | 361 | 511,000 |
| Korea, Republic of | -- | -- | -- | 8,550 | 6,960 | 5,000,000 |
| Mexico | 3,280 | 2,660 | 1,860,000 | 20,500 | 16,500 | 11,800,000 |
| Norway | -- | -- | -- | 20 | 9 | 18,600 |
| South Africa | 3,550 | 2,870 | 1,830,000 | 16,200 | 13,100 | 9,420,000 |
| Total, m.c., 1%-2% C | 8,390 | 6,820 | 4,670,000 | 48,500 | 39,200 | 28,300,000 |
| Total, general imports of m.c., 1%-2% C | 8,390 | 6,820 | 4,670,000 | 48,500 | 39,200 | 28,300,000 |
| High carbon: | | | | | | |
| Australia | 1,320 | 997 | 397,000 | 5,390 | 4,100 | 2,330,000 |
| Brazil | -- | -- | -- | 6,580 | 5,000 | 2,430,000 |
| China | -- | -- | -- | 2,000 | 1,500 | 721,000 |
| France | 12,200 | 9,470 | 4,290,000 | 78,000 | 60,200 | 38,200,000 |
| Saudi Arabia | -- | -- | -- | 1,270 | 994 | 463,000 |
| South Africa | 13,200 | 10,200 | 4,350,000 | 76,400 | 59,300 | 29,200,000 |
| Total, high carbon | 26,700 | 20,700 | 9,050,000 | 170,000 | 131,000 | 73,400,000 |
| Total, general imports of high carbon | 26,700 | 20,700 | 9,050,000 | 170,000 | 131,000 | 73,400,000 |
| Grand total | 36,600 | 28,700 | 15,200,000 | 231,000 | 182,000 | 115,000,000 |
| Grand total, general imports | 36,600 | 28,700 | 15,200,000 | 231,000 | 182,000 | 115,000,000 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS 1/ OF MANGANESE ORE (20% OR MORE MN) IN AUGUST 1999 2/

(Metric tons)

| Source | 20% - 47% Mn | | 47% or more Mn | | Total | |
|---------------|--------------|------------|----------------|------------|--------------|------------|
| | Gross weight | Mn content | Gross weight | Mn content | Gross weight | Mn content |
| Gabon | 21,500 3/ | 4,390 3/ | 37,000 | 19,200 | 58,500 | 23,600 |
| Mexico | 1,750 | 672 | -- | -- | 1,750 | 672 |
| Total | 23,200 | 5,060 | 37,000 | 19,200 | 60,300 | 24,300 |
| Year to date: | | | | | | |
| Australia | -- | -- | 25,400 | 13,300 | 25,400 | 13,300 |
| Belgium | 138 | 55 | 7,260 | 6,680 | 7,400 | 6,740 |
| Brazil | -- | -- | 2 | 1 | 2 | 1 |
| China | -- | -- | 40 | 33 | 40 | 33 |
| Gabon | 37,900 | 12,400 | 190,000 | 88,300 | 228,000 | 101,000 |
| Ghana | 26,100 | 10,200 | -- | -- | 26,100 | 10,200 |
| Mexico | 17,100 | 6,500 | 1,090 | 523 | 18,200 | 7,030 |
| Morocco | -- | -- | 100,000 | 50,000 | 100,000 | 50,000 |
| South Africa | -- | -- | 58,000 | 29,200 | 58,000 | 29,200 |
| Total | 81,200 | 29,100 | 382,000 | 188,000 | 463,000 | 217,000 |

1/ Quantities for general imports and imports for consumption are identical.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN AUGUST 1999 1/

(Metric tons, gross weight)

| Source | Manganese dioxide | | | | Manganese metal | | | |
|------------------------|-------------------|---------------|--------------|---------------|-----------------|--------------|----------|--------------|
| | Quantity | Customs value | Year to date | | Unwrought | | Other | |
| | | | Quantity | Customs value | Quantity | Year to date | Quantity | Year to date |
| Australia | 1,030 | \$1,450,000 | 13,000 | \$18,300,000 | -- | -- | -- | -- |
| Belgium | 18 | 26,300 | 366 | 574,000 | -- | -- | -- | -- |
| Canada | -- | -- | -- | -- | -- | -- | -- | 2 |
| China | -- | -- | 7 | 10,200 | 100 | 1,380 | 40 | 456 |
| France | -- | -- | 23 | 68,500 | -- | -- | -- | 24 |
| Germany | -- | -- | 43 | 229,000 | -- | 184 | 9 | 81 |
| Greece | -- | -- | 16 | 21,500 | -- | -- | -- | -- |
| India | -- | -- | -- | -- | -- | -- | -- | 16 |
| Ireland | 961 | 1,320,000 | 4,960 | 6,980,000 | -- | -- | -- | -- |
| Japan | -- | -- | 16 | 21,400 | -- | -- | (2/) | 4 |
| Mexico | -- | -- | -- | -- | -- | -- | -- | 20 |
| Netherlands | -- | -- | -- | -- | -- | -- | -- | 18 |
| South Africa | 570 | 803,000 | 7,060 | 10,000,000 | 735 | 6,350 | -- | -- |
| Spain | -- | -- | -- | -- | -- | 36 | -- | -- |
| Ukraine | -- | -- | -- | -- | 64 | 186 | -- | -- |
| United Kingdom | -- | -- | 82 | 211,000 | -- | 285 | (2/) | (2/) |
| Total | 2,580 | 3,610,000 | 25,600 | 36,400,000 | 899 | 8,410 | 49 | 622 |
| Total, general imports | 2,580 | 3,610,000 | 25,600 | 36,500,000 | 899 | 8,690 | 49 | 622 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 5 tons, all of which was from Canada, to give a year-to-date total of 114 tons.

Source: Bureau of the Census.

TABLE 6
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE MN), FERROMANGANESE,
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN AUGUST 1999 1/

(Metric tons, gross weight)

| | Manganese ore | | Ferromanganese, 2% or less C | | Silicomanganese | | Manganese metal 2/ | |
|--------------------|---------------|--------------|---------------------------------|--------------|-----------------|--------------|--------------------|--------------|
| | August | Year to date | August | Year to date | August | Year to date | August | Year to date |
| Australia | -- | -- | -- | -- | 9 | 24 | -- | (3/) |
| Belgium | -- | -- | -- | -- | -- | -- | -- | 39 |
| Brazil | -- | -- | -- | -- | -- | -- | -- | 124 |
| Canada | 121 | 684 | 57 | 2,410 | 171 | 2,020 | 156 | 978 |
| Colombia | -- | -- | 18 | 18 | -- | -- | -- | 19 |
| France | 11 | 11 | -- | -- | -- | 14 | -- | -- |
| Germany | -- | -- | -- | -- | -- | -- | -- | 1 |
| Hong Kong | -- | -- | -- | -- | -- | -- | -- | (3/) |
| India | -- | -- | -- | -- | -- | -- | (3/) | 1 |
| Italy | -- | -- | -- | -- | -- | -- | -- | 10 |
| Japan | -- | -- | -- | -- | -- | -- | 73 | 533 |
| Korea, Republic of | -- | 63 | -- | -- | -- | -- | -- | 11 |
| Mexico | -- | -- | 7 | 24 | 62 | 185 | 8 | 62 |
| Netherlands | -- | -- | -- | -- | -- | 19 | 4 | 190 |
| Peru | 18 | 54 | -- | -- | -- | -- | -- | -- |
| Singapore | -- | 747 | -- | -- | -- | -- | -- | -- |
| Spain | -- | -- | -- | -- | -- | 10 | -- | (3/) |
| Sweden | -- | -- | -- | -- | -- | -- | 20 | 79 |
| Taiwan | -- | -- | -- | -- | -- | -- | -- | 7 |
| United Kingdom | -- | 136 | 9 | 9 | -- | -- | 14 | 500 |
| Total | 150 | 1,700 | 91 | 2,460 | 242 | 2,270 | 276 | 2,550 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 564 tons, all of which went to Canada, to give a year-to-date total of 5,750 tons.

Source: Bureau of the Census.

TABLE 7
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 1999, BY CLASS 1/

| Class | Gross weight (metric tons) | Value 2/ (thousands) | Principal sources and destinations: gross weight (metric tons); value (thousands) 2/ | Year to date | | |
|---|-------------------------------|-------------------------|---|-------------------------------|-------------------------|---|
| | | | | Gross weight (metric tons) | Value 2/ (thousands) | Principal sources and destinations: gross weight (metric tons); value (thousands) 2/ |
| Imports for consumption: | | | | | | |
| Manganese oxides other than dioxide | 301 | \$205 | Mexico 170; \$29 | 1,100 | \$1,240 | Mexico 470; \$96 |
| Sulfates, basket category, including manganese sulfate | 4,520 | 1,800 | China 2,630; \$673 | 28,300 | 14,100 | Mexico 13,200; \$6,670 |
| Potassium permanganate | 128 | 255 | Czech Republic 69; \$132 | 928 | 1,780 | Czech Republic 458; \$856 |
| Manganites, manganates, and other permanganates | -- | -- | -- | (3/) | 3 | United Kingdom (3/); \$3 |
| Exports: | | | | | | |
| Manganese dioxide | 370 | 435 | Canada 167; \$70 | 8,820 | 6,590 | United Kingdom 5,110; \$1,630 |
| Manganese oxides other than dioxide | 477 | 367 | Canada 206; \$80 | 2,890 | 2,610 | Canada 2,000; \$806 |
| Sulfates, basket category, including manganese sulfate | 1,210 | 876 | Canada 998; \$299 | 14,400 | 6,390 | Canada 12,300; \$3,620 |
| Potassium permanganate | 93 | 188 | United Kingdom 60; \$120 | 829 | 1,530 | United Kingdom 236; \$482 |
| Manganites, manganates, and other permanganates | 20 | 63 | Costa Rica 15; \$29 | 198 | 932 | United Kingdom 80; \$536 |

1/ Data are rounded to three significant digits.

2/ For imports, Customs value; for exports, f.a.s. value.

3/ Less than 1/2 unit.

Source: Bureau of the Census.